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Feature Article - Statistical Treatment of Economic Activity in the Timor Sea

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This article explains the statistical treatment of economic activity in the Timor Sea, based on the relevant international statistical conventions. It does not address issues of sovereignty. It was published in Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0), September 2003.

INTRODUCTION

For many years, the Timor Sea has been the subject of claims between Indonesia (and now East Timor) and Australia concerning the location of the seabed boundary between the two countries. Significant economic activity, in particular the development of petroleum deposits, is now taking place in an area subject to these claims. The ABS needs to determine the extent to which this activity should be reflected in ABS economic statistics. This article describes the determination that has been made for statistical purposes.

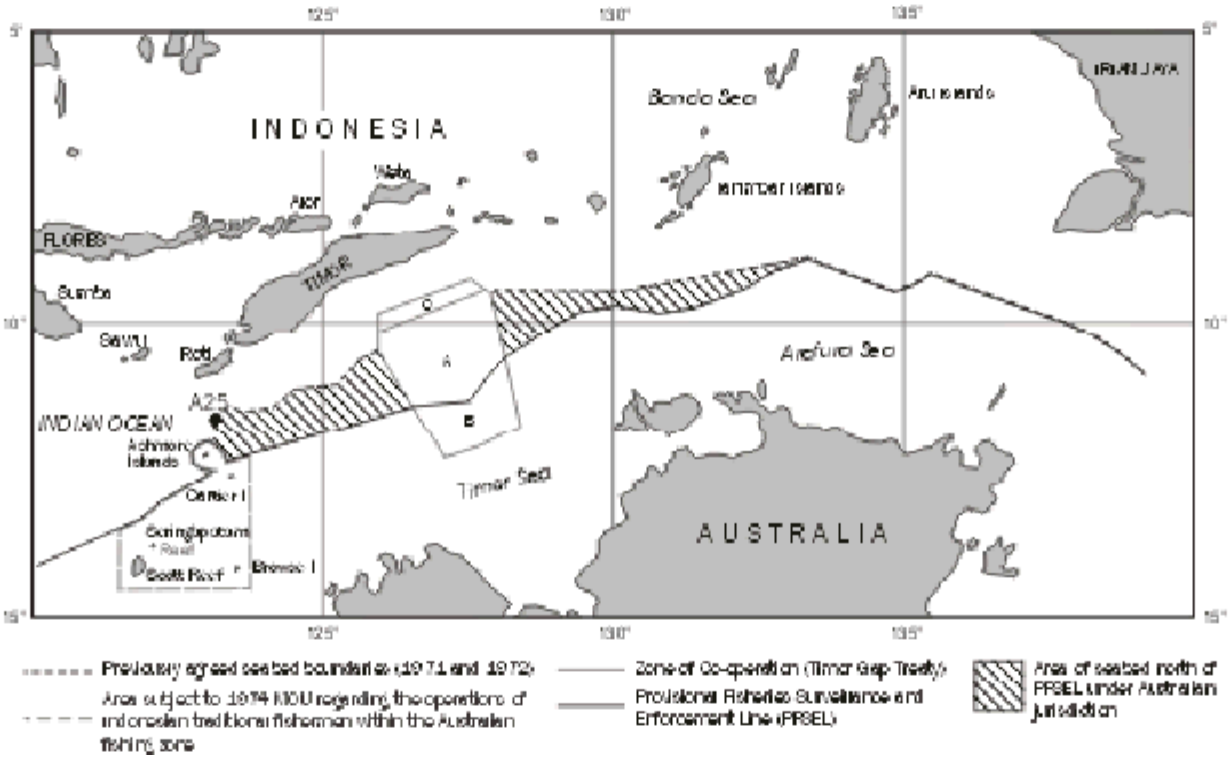
BACKGROUND

The Timor Sea has been the subject of claims between Indonesia (and now East Timor) and Australia concerning the location of the seabed boundary between the two countries. While part of the boundary was agreed in 1971 and 1972, a gap remained (which subsequently became known as the 'Timor Gap'), opposite what was then Portuguese Timor. After Australia recognised Indonesian sovereignty over East Timor, disagreement arose as to whether the boundary line should follow a notional line midway between Australia and East Timor or whether it should follow the physical features of the Timor Trough (these being closer to East Timor). Due to the lack of agreement on the boundary issue all exploration activity in the area of overlapping claims was suspended.

In 1989, the Indonesian and Australian governments signed the Timor Gap Treaty. This treaty, which entered into force in 1991, split the affected area, named the Zone of Cooperation, into three areas: Area A (joint jurisdiction between Australia and Indonesia administered by a Joint Authority); Area B (Australian jurisdiction); and Area C (Indonesian jurisdiction)—see map on the next page.

After East Timor's separation from Indonesia in 1999, a series of interim arrangements extended the operation of the terms of the Timor Gap Treaty with the United Nations Transitional Administration in East Timor (UNTAET) taking on most of Indonesia's rights and obligations. Through this time Australia and UNTAET (on behalf of the future independent East Timor) negotiated a new arrangement.

On 20 May 2002, the newly independent East Timor and Australia signed the Timor Sea Treaty (the Treaty), which entered into force on 2 April 2003. The Treaty provides the basis for the development of the major oil and gas deposits in the Timor Sea between Australia and East Timor in the area covered by Area A—renamed in the Treaty as the Joint Petroleum Development Area (JPDA). The Treaty states that exploration and production activity in the JPDA is to be administered by an authority, the Designated Authority, established by the Australian and East Timorese governments.



The Treaty outlines agreement on a range of issues including administration of the area and the way in which taxation and resource royalty flows from the petroleum production will be distributed between the two countries. However, the Treaty does not address the issue of sovereign rights over the seabed in the Timor Sea and no maritime boundary between the countries has been established. Both Australia and East Timor continue to claim sovereign rights over 100% of the seabed in the JPDA.

The treaty arrangements between Australia and East Timor referred to in this article reflect the understanding of the ABS of the Treaty's statistical implications and are presented to place the statistical treatment described in context. Readers requiring authoritative information on the Treaty should seek advice from the Attorney-General's Department.

THE STATISTICAL CONCEPTS OF ECONOMIC TERRITORY AND RESIDENCE

In measuring the economic activity of each country a logical sequence is followed to determine what economic activity should be attributed to each country. The sequence is to:

- split the world into discrete economic territories
- assign residence for all individuals, businesses, governments and other organisations (referred to as economic units) to specific economic territories
- calculate the economic activity of an economic territory as the sum of the activity of all economic units assigned residence in that economic territory.

A key feature in this sequence is that each economic unit can have residence in only one economic territory.

In general, the first step can be relatively easily determined using established political boundaries. The second step is straightforward for the majority of units and conventions have been developed to deal with more complex cases (for example the treatment of multinational corporations).

The situation in the Timor Sea is not straightforward since there is no defined political or maritime boundary that can be used in the determination of economic territory. Indeed, since both Australia and East Timor claim sovereign rights over 100% of the JPDA seabed, a definition following political boundaries would result in overlapping economic territories and a double counting of economic activity. In view of the claims over the JPDA seabed, for statistical purposes it has been decided to treat the JPDA as being part of the economic territory of both Australia and East Timor, rather than allocate the area exclusively to one country.

In other words, the JPDA is to be treated as a multi-jurisdictional area, without either country having a predominant claim from a jurisdictional perspective. Importantly, there is no implied or notional allocation of economic territory between the two countries. Should a delimitation of a maritime boundary be made in the future the allocation of economic territory would become clear. Once a boundary is in place, the economic activity of each country would depend primarily on the location of the producing units in relation to the boundary.

An alternative approach that would avoid the need for any specific allocation of the production in the JPDA is to consider that the area is international waters—i.e. that it is no specific country's economic territory. In such cases the economic activity is attributed to the economic territory with whom the unit undertaking the activity is resident. In this case however, it is clear that both East Timor and Australia consider themselves to hold sovereign rights over the seabed to the exclusion of all other countries. This being the case, the treatment of the JPDA as international waters would not be appropriate.

ECONOMIC ACTIVITY IN THE TIMOR SEA AND AUSTRALIA'S ECONOMIC STATISTICS

In recording Timor Sea economic activity in Australia's economic statistics each aspect of activity, e.g. production, income and net worth, must be considered separately with a focus on the particular units involved and the underlying economic measurement principles. The following sections outline the measurement implications for each aspect. Because different considerations need to be taken into account for each aspect, there are differences in allocation between measures of production, income and net worth. This is a reflection of the fact that a clear delineation of economic territory, which is normally taken for granted, does not exist in this case. Importantly though, there is coherence across the different aspects of economic activity because of the use of common underlying principles.

Measurement of production

The measurement of production covers the measurement of GDP and its components, including

the value of output, gross fixed capital formation, imports and exports, compensation of employees and gross operating surplus. In the national accounts, production is allocated to the country in whose economic territory the production takes place. For this reason the production of an American-owned company operating in Australia is recorded as Australian production even though a proportion of the income from that production will ultimately flow to the United States.

For the reasons described above, the JPDA is treated as multi-jurisdictional for the purposes of Australia's economic statistics. Thus, production in the JPDA has to be allocated between Australia and East Timor. Given that neither country has ceded sovereign rights over the JPDA it is considered that, on balance, production should be allocated 50:50 between Australia and East Timor. This reflects the allocation of production in the national accounts on a jurisdicitional basis rather than in terms of the ultimate beneficiary of any income flow from the production. In practice, this is achieved by treating all units operating within the area as consisting of two nominal entities—one with residence in the economic territory of East Timor and one with residence in the economic territory of Australia.

One impact of this approach is that there will be a range of international flows recorded between the two countries that would not have been estimated had the JPDA been treated as the economic territory of solely Australia or East Timor. For example, suppose an entity operating in the JPDA employs people who are residents of Australia. In this case 50% of the wages paid would be treated as payments by an Australian entity to Australian residents and the other 50% of the wages would be treated as payments by an East Timorese entity to Australian residents—a flow that is captured in the balance of payments. These and other production related flows can be measured and recorded following standard principles.

An exception to the allocation of production on a 50:50 basis concerns the pipeline under development between the JPDA and the Northern Territory. In this case the pipeline is not considered to be part of the multi-jurisdictional area covered by the JPDA but is under the jurisdiction of Australia. Hence the economic territory can be clearly defined as Australian and the activity associated with the construction of the pipeline and the output from the pipeline itself can be allocated 100% to Australia.

Measurement of income

In the measurement of production some elements of income are covered. These are compensation of employees, gross operating surplus and taxes less subsidies on production and imports. Although these items form the largest part of a country's income, there are other relevant income flows that must be considered. These include flows of interest, dividends, rent on natural assets (commonly referred to as royalties with respect to mineral deposits) and taxation other than taxation on production and imports. In order to measure a country's gross national income and its gross disposable income, as distinct from its GDP, it is necessary to take into account these income flows between the country and the rest of the world.

The Treaty defines how the resource royalty and taxation income flows relating to the JPDA are to be apportioned between the two countries. For resource royalties, 90% are payable to the East Timorese government and 10% to the Australian government. For taxation, in general, Australia applies its tax system to 10% of income earned in the JPDA and East Timor applies its tax system to 90% of the income earned in the JPDA. These proportions are applied to the relevant activities of each conceptual entity in order to estimate the income transactions between Australia and East Timor that are recorded in the balance of payments.

The final income result for each country is unaffected by the decisions relating to economic territory, residence and production in respect of the JPDA. At the same time, changes to the Treaty which affect the allocation of resource royalty and taxation flows between the countries will not affect the measured production of each country. Both of these outcomes are sound from an

economic measurement perspective.

Balance sheet measurement

A proportion of the sub-seabed petroleum deposits in the JPDA need to be recorded on the national balance sheet of each country. Since the JPDA is considered a multi-jurisdictional area, the petroleum deposits are, in effect, jointly owned by the Australian governmentIn Australia, all sub-soil assets are deemed to be owned by the general government sector. and the East Timorese owner. Without a precise delineation of economic territory within the JPDA there can be no specific attribution of the petroleum deposits to each country. Further, there is no direct link to the allocation of production activity as defined above. This is consistent with the treatment of general mining operations in Australia where the business undertaking the extraction of the resource has no direct ownership of the resource itself. The estimation of production and net worth are therefore related but independent considerations.

The value of assets within the JPDA will depend, as with all assets, on the future income stream that will accrue to the owner of the asset. For the Australian government the future income stream from its ownership of the mineral resources is directly related to the value of future resource royalty flows. As it will receive 10% of these flows then 10% of the total value of the petroleum deposits in the JPDA will be recorded in the Australian balance sheets.

No consideration has been given to any other natural resource assets which may be present within the JPDA. The allocation of the value of any other assets in the JPDA between Australia and East Timor would need to be considered separately.

Measurement of economic activity by state

All production related transactions within the Australian economic territory component of the JPDA will be attributed to the Northern Territory. This has been decided on the basis that in most cases the units operating in the JPDA will have a closer relationship with the Northern Territory than with any other state. For example, most of the services and provisions will be supplied from or through Darwin, and when a pipeline is constructed from the JPDA it will come to the Northern Territory.

Treatment of the Designated Authority

The primary purpose of the Designated Authority is to act as an agent for each government and channels funds (mainly royalty payments) to the Australian and East Timorese governments. For the purposes of economic statistics the Designated Authority is considered to be operating in the JPDA itself and hence its residency should be split 50:50 between Australia and East Timor. The two conceptual entities will then be shown to transact with Australia, East Timor and the rest of the world according to standard principles.

IMPLEMENTATION

In recent periods, economic activity in the JPDA has been largely limited to construction. This has been recorded in ABS economic statistics on a 50:50 basis consistent with the treatment described in this article. As production starts and flows of resource royalties and taxation commence, these will be allocated following the treatment above.

FURTHER INFORMATION

Queries on the ABS treatment of economic activity in the JPDA should be directed to Carl Obst on 0262526646 or email carl.obst@abs.gov.au.

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